Questions for the Quiz

Round 1 (MCQ):

1. How many atoms exist in the Observable Universe?
2. What is the Temperature of the Corona of the Sun?
3. Which is the smallest Length ever theorised in the Universe?
4. What is the value of the Gravitational acceleration on the surface of the Moon?
5. What is the name of the star that is considered the strongest magnet in the universe?
6. Which of these are the Fundamental forces of the universe?
7. Which of the following can act as a load in an electrical circuit?
8. Which of the following theories were **not** given by Issac Newton?
9. Which of the Following constants are Universal?
10. Which of the following are **not** Moons of Saturn?

Round 2 (2T-1L):

1. Stat 1: The speed of the Expansion of the Universe is 70KM/sec/mpc
   Stat 2: There exists a Planet in the Universe that is completely made up of Diamonds
   Stat 3: Second Most Brightest Star is 'Sirius'

2. **Stat 1: The 'Pillars of Creation' were photographed first by the James Webb Telescope**
   Stat 2: The James Web Telescope is a Infrared Telescope
   Stat 3: The Hubble Space Telescope was the first to discover the Expansion of the Universe

3. Stat 1: Every Fluid exerts a Pressure on the Walls and the Base of a Container
   Stat 2: Horizontally, The Pressure applied by a Liquid is the Same by individual liquid layers
   Stat 3: Solids and Liquids are generally compressible under Low-Moderate pressure

4. Stat 1: Mangalyaan's official mission name is Mars Orbiter Mission (MOM)
   Stat 2: The Mangalyaan is still Active to this day and sending back data to Earth
   Stat 3: The concept of Gravitational Slingshot was used by Mangalyaan to reach Mars

5. **Stat 1: The Speed of Light 'c' in vacuum is exactly equal to 300,000 km/sec**
   Stat 2: The Loudest sound produced on Earth was by 'Krakatoa Volcanic Eruption'
   Stat 3: Parabolic Mirrors are used instead of Spherical Mirrors to avoid Spherical Aberrations

Round 3 (Picture-Based Round):

1. What is the name of the cosmic entity shown in the picture? (Not a general Black Hole) (Quasar)
2. What is the name on the map on this record that locates Earth in the galaxy? (Golden Record)
3. Which ElectroMagnetic waves are shown in this image (CMB)
4. What is the name of the group of telescopes that first captured this image (EHT Image)
5. Which planet does this sunset belong to? (Mars Sunset)
6. Which constellation is shown here? (Cassiopia)
7. Which satellite is shown in this image? (Aryabhatta)

Round 4 (Buzzer-Rapid Fire):

1. The rapidly moving stream of charged particles that is being driven away from the sun is known as what?
2. What is the name of the largest volcano in the solar system?
3. Which is the strongest substance in the universe? (Hint: Found in Neutron Stars)
4. Which is considered the coldest state of matter ever found at nearly Zero Kelvin
5. Aurora Borealis are primarily caused by which elements in the Earth's Atmosphere
6. What is the Gravitational boundary of the Solar System known as?
7. What is the name of the Largest Black Hole found till date?
8. The highest temperature on earth was recorded in which instrument (Hint: Collision of Particles caused these temperatures)
9. Which element is used to keep time in modern clocks with the most accuracy (Hint: It is an isotope of 3rd Period and belongs in the f-block)
10. NASA uses which radioactive element to power its spacecrafts (Hint: It's an Isotope of a f-block element)
11. Which planet does the moon 'Europa' Belong to?
12. Name the comet, Designated as C/2023 A3, rivalled Halley's Comet in brightness last year?
13. Launched after Chandrayaan-3, Name India's first solar observatory mission?
14. Which exoplanet did the James Webb Telescope find possible traces of DMS (Di-Methyl Sulfide), a chemical linked to life in?
15. What is the name of the Mission that was launched recently in collaboration between NASA & ISRO, that aims to study the Earth's Surface and Climate in Extreme Detail?

Tie-Breakers:

1. How many Dwarf planets exist in our Solar System
2. How many Moons does Venus and Mercury combined have?